

**SOUTH MOUNTAIN RECREATION AREA  
PARK QUEST 2018**

**OPERATION: SIGNAL STATION DECODED**

**WELCOME!**

Hiking through history has never been so fun. On this Quest your team will have to step back in history, learning to communicate without cell phones or computers! Civil War soldiers had to send messages to each other from miles away, without the other side understanding their messages. Learning the secret code and team work were needed to get the job done. Everything depended on their success: their lives, their fellow soldiers, and their country! Just like signalmen in the Civil War, your team will hike to the Washington Monument, signal codes to each other, and decode the messages. Good Luck!

**DON'T FORGET...**

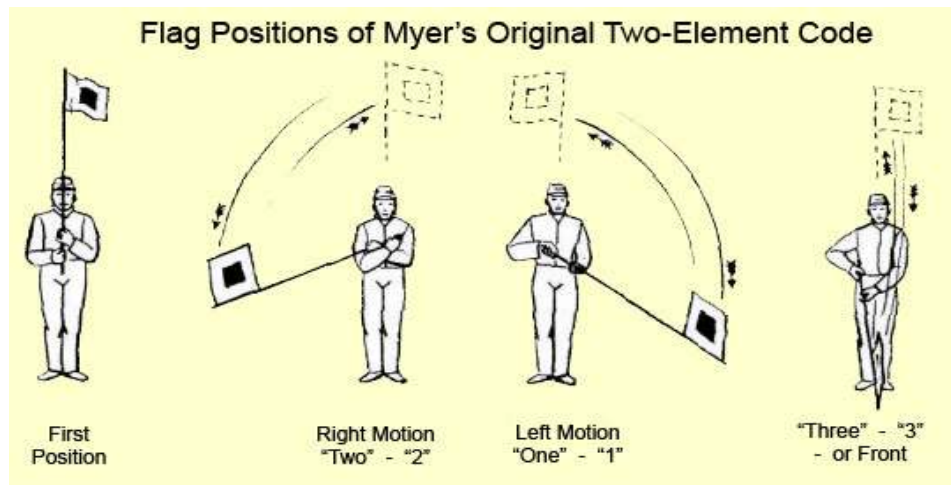
Print these worksheets and bring them with you. You will also need something to write and draw with - a pen or pencil will be fine, a couple of different colored pencils or crayons would be helpful. You may also want to bring water/trail snacks, appropriate clothing & shoes for hiking, climbing, trekking, playing, learning, & growing! A camera is optional but recommended.

**LET'S GO!**

1. *At Washington Monument State Park - Hike to the Washington Monument. Access the trail off of the North side of the upper, Day Use parking lot.*
2. *At Washington Monument - Create a team signal flag and send a message to teammates. On page 2 you will find background information about the signaling system used here during the Civil War. On page 3 you will find detailed directions on how to complete the challenge and an example to help.*
3. *Be sure to take a break, and enjoy the beautiful views from the Washington Monument.*
4. *After you have successfully created a signal flag and sent a message to your team, head back down to the parking area to visit the Museum. In the museum, you can find more information about the Washington Monument's history and the Battle of South Mountain. Show your signal flag to the museum docent to receive your PQ stamp.*

**BACKGROUND INFORMATION**

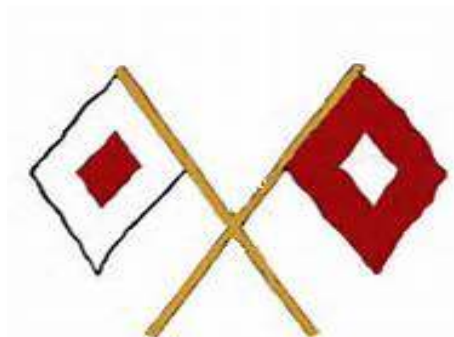
During the Civil War, Union troops used this Monument as a signal station. Soldiers stood at the top of the monument and signaled to other signal stations located down below in the valley and on the surrounding ridges. Flags were used to send signals, and when waived a certain way, spelled out a message. The way the flags were waived was a special code called the Myer's "Wig Wag" System. By using this system, Union troops could communicate with each other from a greater distance, without the Confederate troops being able to understand their messages. This was very important because from where they were, they could see Confederate troops and relay important details to the Union troops. A Signal Corps crew consisted of 1 person to signal, 1 person looking at the other signal station through a telescope, and 1 person recording the codes and using a key to translate the codes into messages.



*These are the motions soldiers used. Each motion represented a number. They started with the flag straight up or in the first position. By moving the flag down to the right and back up, or down to the left and back up, they were sending a code.*

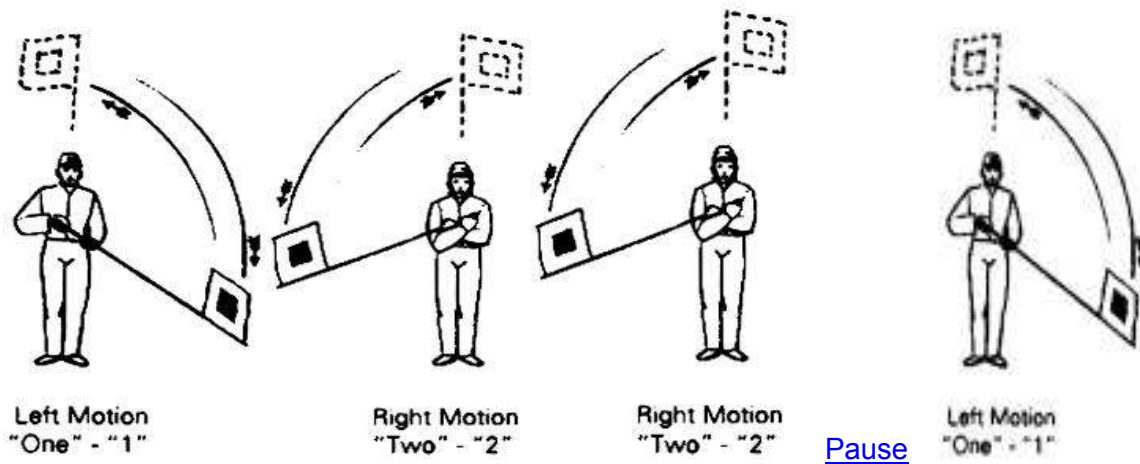
A ..... <b>22</b>	O ..... <b>21</b>
B ..... <b>2112</b>	P ..... <b>1212</b>
C ..... <b>121</b>	Q ..... <b>1211</b>
D ..... <b>222</b>	R ..... <b>211</b>
E ..... <b>12</b>	S ..... <b>212</b>
F ..... <b>2221</b>	T ..... <b>2</b>
G ..... <b>2211</b>	U ..... <b>112</b>
H ..... <b>122</b>	V ..... <b>1222</b>
I ..... <b>1</b>	W ..... <b>1121</b>
J ..... <b>1122</b>	X ..... <b>2122</b>
K ..... <b>2121</b>	Y ..... <b>111</b>
L ..... <b>221</b>	Z ..... <b>2222</b>
M ..... <b>1221</b>	& ..... <b>1111</b>
N ..... <b>11</b>	ING ..... <b>2212</b>
	TION ... <b>1112</b>

*By reading the numbers being sent by flag motions, soldiers used this information key to translate the numbers into letters, letters into words, and then whole messages.*



*These are the flags used for signaling during the Civil War by Union Troops. The 2 colors were meant to be used against a contrasting background, making them seen clearly, and messages easier to be read.*

For Example:



By moving the flag:

- From the middle to Left (1), middle to Right (2), middle to Right (2).
- Pause at the middle to indicate a break (\_).
- From the middle to Left (1).

This sends the message "122\_1". Using the key above, these numbers translate to the word "HI".

### ACTIVITY CHALLENGE

Create your Signal flags on the next 2 pages. Use whatever design you'd like; they can be very simple, like the flags used by Union troops, or super fancy, like you. Troops used 2 different flags, which one depended on the conditions around them. You can make 2 flags also, but you'll only need one for this activity.

Once finished, use the key above to send a message to your teammates. Separate your flag from the rest of the worksheets to send your message, if you'd like. Simply hold your flag above your head moving it down to the right or left. Remember, soldiers worked in teams when sending and receiving messages. Learn the motions and then have your teammates call out directions to practice. Teams can call out the numbers and write down the numbers as they are being sent, then decode the message after the person with the flags has finished. Try to keep your messages very short at first, and then work up to longer messages. The Signal Corps crews had a lot of practice sending and receiving important messages, they relied on each other to be successful just as your team will need to work together to complete this challenge.

**NOTE:** Please do not lean over the top of the monument to signal teammates below. Ground level signaling is recommended.

# Our Signal Flag

Team: \_\_\_\_\_

# Our Signal Flag

Team: \_\_\_\_\_